

ON THE  
SUCCESSFUL TREATMENT  
OF  
EPILEPSY

BY THE  
ADMINISTRATION OF HYDRATE OF CHLORAL WITH BROMIDE OF POTASSIUM.

BEING A  
PAPER READ BEFORE THE GLASGOW SOUTHERN MEDICAL  
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PORTEOUS BROTHERS, 45 WEST NILE STREET.

1880.

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ON THE

# SUCCESSFUL TREATMENT OF EPILEPSY.



## CASE I.

On the evening of the 12th of April, 1877, I was called hurriedly to see a gentleman who had been brought home from business in a state of insensibility. I was told that he had been subject to epileptic attacks for some years, and that he had three severe fits in his place of business during the afternoon. He was quite comatose, and I found, on examination, a large ecchymosed swelling on his head, apparently the result of an injury received during one of these epileptic seizures. His tongue had not been bitten. During my examination, he was again seized with violent epileptic convulsions. I administered chloroform. The attack speedily passed off, and he again lapsed into the comatose state. I drew off the urine from his bladder, but found on boiling it no trace of albumen. I prescribed an evaporating lotion to be applied to his head, and a draught containing 30 grs. of Chloral Hydrate, with 30 grs. of Bromide of Potassium to be administered by the mouth. He began to recover consciousness on the following day, and within 24 hours of my visit his intellect became quite clear.

I learned that he was 34 years of age, unmarried, and of healthy parentage. He was a strong-looking man, and informed me that he was very temperate and regular in his habits, and had, all his life, freely enjoyed outdoor sports. His health, apart from the epileptic attacks, had always been good. The history he gave me of his epilepsy was as follows:—

When 24 years of age, one evening about 9 o'clock, while he sat upon a sofa reading, without any premonitory symptom or apparent cause, he lost consciousness, and in a few minutes after, he was found lying upon the floor unconscious. As he had bit his tongue, it was inferred that he had had an epileptic fit. Next morning he was quite well, and returned to

business. He remained well for some months, then he began to have epileptic seizures during the night. These attacks began with a cry which drew attention to his condition. For the following three or four years the fits recurred at intervals of two, three, or four months; after that they became more frequent, and occurred during the day as well as by night—sometimes while walking in the street, sometimes at his place of business. For five years he had kept a note of the date of the fits.\*

In 1873 he had 9 attacks.

1874 " 11 "

1875 " 23 "

1876 " 15 "

From 1st January, 1877, till the date of my visit, 12th April, he had had nine attacks, exclusive of the four attacks which occurred on the day of my visit—13 attacks in  $3\frac{1}{2}$  months. He usually felt extremely well and in high spirits the day before a fit. He got no warning before any of the seizures. He would not have known what had happened had he not been told by others. He found that his memory was becoming impaired. He often could not find a word to express what he wanted to say, and he was occasionally told of things and persons he ought not to have forgotten, such as the events of his school days, and his early companions. These were quite going from his memory. A few days after I began to attend him his employer, a calico printer, called upon me and asked me to advise him to give up business. He said that my patient had been a most valuable and trustworthy servant, but, of late, he was beginning to forget the names of the customers, and many details of the business which he formerly knew and transacted most accurately. I accordingly advised him to give up business for a time, and asked him to continue to take the draught of Chloral and Bromide of Potassium every night on going to bed, to go to bed early, and take as much sleep as he could; during the day to take exercise in the open air, and to give up reading altogether for a time. On the 15th of April I prescribed 30 grs. of Bromide of Potassium to be taken three times a day in addition to the draught at bed time, so that he had a daily amount of  $\text{ʒij}$ . of Bromide of Potassium and 30 grs. of Chloral. At the end of four months he omitted the Chloral but continued to take 90 grs. of Bromide of Potassium for two months longer. In all, he consumed

\* See Appendix.

during the six months 60 drachms of Chloral and 40 ounces of Bromide of Potassium, and from the time of my visit up to the present time, for three years, he has not had a single attack of epilepsy.

In the month of August he informed me that he had suffered all his life from ptyosis, but he did not think that it caused him any inconvenience further than in preventing him from emptying his bladder as speedily as other people. He had not been troubled with nocturnal emissions and had not been addicted to masturbation. I circumcised him. In the month of October, six months after I first made his acquaintance in the manner above-narrated, he left Glasgow to make a pleasure voyage round the world, which lasted 18 months. When he returned he called upon me, and informed me that he had not had any return of his epilepsy—that he had quite recovered his memory—that, whereas before he left home, if he went for a day's pleasure trip, he could not tell in a few days after what had occurred during the trip, and had lost recollection of the scenery he had passed through, he can now remember all that has happened in a year's journey. The past which was becoming a blank to him is now filling up again, and things are now coming back vividly to his recollection which he had quite forgotten during the later years of his epilepsy. On enquiry as to the previous treatment which had been adopted by his former medical advisers, he told me that he had taken Bromide of Potassium for years without any beneficial effect, and that for some months before I was called to see him he had been taking a preparation of Arsenic.

## CASE II.

On the 27th of October, 1878, I was called to attend a young unmarried lady, aged 25. From her mother I got the following history of her illness :—

She was born in Jamaica, and lived there for several years. When one year old she had an attack of brain fever. This illness lasted for three days, and during its course she had several fits. At two years of age she had a return of the brain fever. On this occasion it lasted eight days, and was, as before, accompanied by convulsive seizures. Patient's mother informs me that this brain

fever is common in Jamaica, and that three of her other children, who are now well and strong, had similar attacks with fits. From the date of the second attack my patient continued well until she was nine years of age. At that age, one day, while doing her arithmetic, it was noticed that she suddenly seemed unconscious of what she was doing, and began spelling instead of adding her sums. Her mother was alarmed by this occurrence, gave her a dose of purgative medicine, and put her to bed. An attack of convulsions occurred during that night. Next day she was well, and continued so for some months; then the convulsions recurred, and since that date, for 16 years, she has had attacks of loss of consciousness, with general convulsions, on an average once a month, and, if she missed a month, she had two in the following month. These attacks of the "*Grand Mal*" began with a sudden cry, and, at the same moment, a stretching out of both arms, and twisting of the muscles of the mouth, then general convulsions, lasting several minutes, and followed by great prostration of strength. Only on one occasion was she known to have bitten her tongue. In the intervals between these severe fits she had daily attacks of momentary unconsciousness, with slight twitchings of the muscles of the mouth, and followed by sleep. In these slighter attacks (*Petit Mal*) she sometimes fell to the ground, sometimes not. Occasionally these slighter attacks are preceded for a moment or two by a feeling of slight constriction and loss of sensation about the lower part of the chest, which gives her time to lie down, but usually there is no warning. Eleven years ago, she passed twenty-one months without any attack of the *Grand Mal*; but during that time she had the daily attacks of the *Petit Mal*. Sometimes she had as many as two or three of these slighter seizures in the day. Occasionally, during these 16 years, she has passed a week without having any attack even of the *Petit Mal*, but if that did happen, a severe attack was sure to follow. During the week previous to my first visit (Oct. 27th, 1878), she had had an attack of the *Petit Mal* every day; and on the day previous to my visit she had four attacks of the *Grand Mal*. I first saw her on the morning after these four attacks, and found her lying in a semi-comatose condition; she did not speak except in answer to questions, and even then in a whisper, and in a very hazy manner, as if she did not quite under-



stand what was said to her. I ordered a sinipisin to the whole length of the spine, and, as her bowels were confined, I gave her a purge of Calomel and Scammony. She had no return of the fits that day. Next day she was much brighter, and able to be out of bed. I then prescribed a dose of 30 grs. of Chloral Hydrate with 30 grs. of Bromide of Potassium nightly, and directed her mother to allow her to sleep as long as she desired, and to keep a daily note of any attacks she might have, and of the length of time that she passed in sleep after the draught. Here is a table showing the results for the past 18 months:—

SUMMARY OF RESULTS OF TREATMENT BEGUN OCT. 27, 1878.

DATE	Number of Attacks of Grand Mal.	Number of Attacks of Petit Mal.	DATE.	Number of Attacks of Grand Mal.	Number of Attacks of Petit Mal.
1878.			1879.		
November, .	0	17	May, . . .	0	1
December, .	0	4	June, . . .	0	1
1879.			July, . . .	0	3
January, .	0	2	August, . .	0	4
February, .	0	4	September, .	0	3
March, . .	0	2	October, . .	0	3
April, . .	0	0			

The treatment was begun on the night of the 27th October, with a dose of 30 grains of Chloral Hydrate, with 30 grains of Bromide of Potassium. The dose was gradually increased, until on the 2nd of December patient was taking 60 grains of Chloral Hydrate, with 60 grains of Bromide of Potassium, every night. The amount of sleep after each dose ranged from 9 to 12½ hours, averaging about 10 hours. On the 6th of December, the heart's action became rather weak, to remedy which I prescribed 15 drops of Tincture of Digitalis, to be taken with 15 drops of Tincture of the Muriate of Iron, three times daily. This had the desired effect. This treatment was continued until January 8th, 1879, when patient's stomach got much upset, and she complained of being constantly in a state of drowsiness during the day. I therefore directed her to cease to take the Chloral mixture, and prescribed 30 grains of Bromide of Potassium, to be taken morning and night. In the middle of February, during her menstrual period, she had three attacks of the *Petit Mal* in rapid succession. On this account, I directed her to resume the Chloral mixture, but to take it only

every second night, so that she might have every alternate day free from the constant state of drowsiness above mentioned. On the 10th day of May she had a slight attack of the *Petit Mal*. I noted that the patient had not had any attack since the 30th of March, and on account of having been so long free from her complaint, she had greatly reduced the dose of the Chloral mixture. On the evening of the 9th of May she took no medicine. She was directed to resume the drachm doses every alternate night. No further attack occurred until the 28th of June. Her mother noted in connection with this attack that patient had been at the seaside for a fortnight, and seemed to be in remarkably good health. She had one day walked a distance of five miles without showing symptoms of fatigue; she had therefore given up the medicine for a week. It was resumed as formerly. She had two attacks on the 28th of July, and one attack on the 29th. These attacks occurred during her menstrual period, and it was again noted that she had not taken any medicine for several nights previously, on account of severe pain in the eyes, with headache.

I need not weary you with any further minute details. It may suffice to say that as long as the patient could be got to take the remedies regularly and in sufficient dose she had no attacks even of the *Petit Mal*. In the month of November she gave up taking medicine of any kind, and in December she had an attack of the *Grand Mal*—the first seizure of that kind within a period of 14 months. On that occasion her mother sent for me, and informed me that her daughter had taken such a dislike to the Chloral mixture that she refused to take any more of it, but she was willing to try anything else. I therefore prescribed Belladonna, and pushed that remedy until it produced its physiological effects. She continued to take this remedy for about three weeks; but as the attacks of the *Petit Mal* became more frequent, and she had another attack of the *Grand Mal* in January, she asked me to try the Bromide of Potassium, without the Chloral. I then prescribed 30 grain doses of Bromide of Potassium to be taken three times a day, but still the attacks of the *Petit Mal* continued to recur frequently, and she had several attacks of the *Grand Mal* in February and March. Last month I persuaded her to go back to the Chloral mixture in the modified dose of 40 grains, and combined it with 30 grains of the Bromide



of Ammonium. She has not had an attack of the *Grand Mal* since she began this combination, and she has passed a fortnight without any attack of the *Petit Mal*. This patient is not cured; but when we remember that the late Professor Trousseau, who recorded the results of the treatment of 170 cases of Epilepsy, by means of the long-continued administration of Belladonna, was satisfied when he found the fits becoming less frequent at the end of 12 months, and predicted from that circumstance the probability of ultimate recovery. I think we have good reason to be well satisfied with the effects of the Chloral Hydrate, which repeated observations in this case show to be a most valuable adjunct to the well known treatment of Epilepsy by large doses of Bromide of Potassium. I trust that by perseverance in the use of these remedies my patient may yet be restored to the enjoyment of health.

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## APPENDIX.

### PATIENT'S NOTES OF DATE AND TIME OF VARIOUS EPILEPTIC ATTACKS DURING THE LAST FIVE YEARS OF HIS ILLNESS.

1873.

23rd January,	...	...	...	Early in morning.
14th February,	..	...	...	Very early in morning.
6th April,	...	...	...	At 7 a.m.
16th May,	...	...	...	At 7 a.m.
20th June,	...	...	...	Early morning.
3rd July,	...	...	...	At 7½ a.m.
24th August,	...	...	..	At 6 a.m.
27th September,	...	...	...	At 7½ a.m.
6th November,	...	..	..	About 8 a.m.
				9 attacks.

1874.

1st February,	.	...	..	During night.
18th "	...	...	...	Do.
3rd March,	...	...	...	About 7½ a.m.
3rd April,	...	...	...	During night.
2nd June,	...	...	...	About 7 a.m.
8th "	...	...	...	Do.
22nd "	...	...	...	Do.
15th July,	...	...	...	Do.
3rd August,	...	...	...	Do.
23rd October,	...	...	...	At 6 p.m.
4th November,	...	...	...	About 2 a.m.
				11 attacks.

## 1875.

3rd January,	...	...	...	About 9 p.m.
20th "	...	...	...	About 10½ p.m.
22nd March,	..	..	...	During the night.
29th "	..	...	...	Do.
14th April, ...	...	...	...	At 7¼ a.m.
18th " ...	...	...	...	At 12 p.m.
21st May, .	..	...	...	At 11 p.m.
26th " ...	...	...	...	At 8 a.m.
22nd June, ...	...	...	...	At 2 p.m.
1st July, ...	...	...	...	At 7½ a.m.
10th " ...	..	...	...	Do.
20th " ...	...	...	...	At 7 p.m.
24th " ...	...	...	...	At 4 a.m.
27th " ...	...	...	...	During night.
1st September,	..	..	...	At 7 a.m.
30th "	..	...	...	At 11 p.m.
1st October,	...	..	...	At 9 p.m.
6th "	..	...	...	During night.
4th November,	...	...	...	At 7 p.m.
15th "	..	..	...	About 7 a.m.
10th December,	...	...	...	At 7½ p.m.
20th "	...	..	...	During night.
22nd "	...	...	...	Do.

23 attacks.

## 1876.

7th January,	...	...	...	About 10 p.m.
17th February,	...	...	...	During night.
3rd March,	...	...	...	At 11 p.m.
29th "	...	...	...	About 2 p.m.
21st April, ...	..	...	...	About 8½ p.m.
25th May, ...	..	...	...	About 3 p.m., and also 8 p.m.
11th July, ...	..	...	...	About 2 p.m.
27th " ...	...	...	...	Do.
9th September,	...	...	...	About 3 p.m.
13th October,	...	...	...	At 5½ p.m.
6th November,	...	...	...	At 6 a.m.
17th "	..	...	...	At 2½ p.m.
22nd "	...	...	...	About 8 a.m., and also 2½ p.m.

15 attacks.

## 1877.

15th January,	...	...	...	During night.
25th "	...	...	...	At 8 a.m. and 10 p.m.
9th February,	...	...	...	At 7¼ a.m.
22nd "	..	...	...	At 9½ a.m.
26th "	...	...	...	At 3 a.m. and 7½ p.m.
5th March,	...	..	...	At 9½ p.m.
12th "	...	...	...	At 7 a.m.
10th April,	...	...	...	During night.
11th "	...	...	...	At 2 p.m. Worse attack I ever had.



